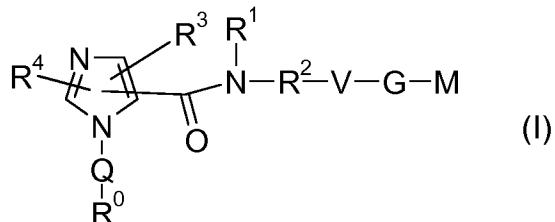


AMENDED CLAIMS

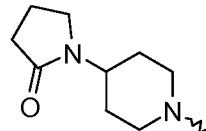
1. (Currently amended) A compound of the formula I,



wherein,

- R⁰ is 1) a monocyclic or bicyclic 6- to 14-membered aryl, wherein, the aryl is mono-, di- or trisubstituted independently of one another by R₈,
- 2) a monocyclic or bicyclic 4- to 15-membered heterocyclyl, selected from the group consisting of acridinyl, azaindole, azabenzimidazolyl, azaspirodecanyl, azepinyl, azetidinyl, aziridinyl, benzimidazolyl, benzofuranyl, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzthiazolyl, benztriazolyl, benztetrazolyl, benzisoxazolyl, benzisothiazolyl, 1,3-benzodioxolyl, carbazolyl, 4aH-carbazolyl, carbolinyl, chromanyl, chromenyl, cinnolinyl, decahydrochinolinyl, 4,5-dihydrooxazolinyl, dioxazolyl, dioxazinyl, 1,3-dioxolanyl, 1,3-dioxolenyl, 6H-1,5,2-dithiazinyl, dihydrofuro[2,3-b]-tetrahydrofuran, furanyl, furazanyl, imidazolidinyl, imidazolinyl, imidazolyl, indazolyl, indolinyl, indolizinyl, indolyl, isobenzofuranyl, isochromanyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolyl, isothiazolyl, isothiazolidinyl, isothiazolinyl, isoxazolyl, isoxazolinyl, isoxazolidinyl, 2-isoxazolinyl, ketopiperazinyl, morpholinyl, naphthyridinyl, octahydroisoquinolinyl, oxadiazolyl, 1,2-oxathiepanyl, 1,2-oxathiolanyl, 1,4-oxazepanyl, 1,4-oxazepinyl, oxazinyl, oxazolidinyl, oxazolinyl, oxazolyl, oxetanyl, oxocanyl, phenanthridinyl, phenanthrolinyl, phenazinyl, phenothiazinyl, phenoxathiinyl, phenoazinyl, phenylpyridyl, phthalazinyl, piperazinyl, piperidinyl, pteridinyl, purinyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pyridoazolyl, pyridoimidazolyl, pyridothiazolyl, pyridyl, pyridopyridinyl, pyridopyrimidinyl, pyrimidinyl, pyrrolidinyl, pyrrolidinonyl, pyrrolinyl, pyrrolyl, quinazolinyl, quinolyl, 4H-quinolizinyl, quinoxaliny, 1,4,5,6-tetrahydropyridazinyl, quinuclidinyl,

tetrahydrofuranyl, tetrahydroisoquinolinyl, tetrahydroquinolinyl, tetrahydropyranyl, tetrahydropyridinyl, tetrahydrothiophenyl, tetrazinyl, tetrazolyl, 6H-1,2,5-thiadiazinyl, thiadiazolyl, 1,2,3-thiadiazolyl, 1,2,4-thiadiazolyl, 1,2,5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, 1,2-thiazinyl, 1,3-thiazinyl, 1,4-thiazinyl, 1,3-thiazolyl, thiazolyl, thiazolidinyl, thiazolinyl, thienyl, thietanyl, thienothiazolyl, thienooxazolyl,



thienoimidazolyl, thietanyl, thiomorpholinyl, thiophenolyl, thiophenyl, thiopyranyl, 1,2,3-triazinyl, 1,2,4-triazinyl, 1,3,5-triazinyl, 1,2,3-triazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl, xanthenyl, or

- 3) a monocyclic or bicyclic 4- to 15-membered heterocyclyl, containing one, two, three or four heteroatoms chosen from the group consisting of nitrogen, sulfur or oxygen, wherein, said heterocyclyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R8, and which is additionally substituted by a monocyclic or bicyclic 4- to 15-membered heterocyclyl, containing one, two, three or four heteroatoms chosen from the group consisting of nitrogen, sulfur or oxygen, wherein, said heterocyclyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R8;

- R8 is
- 1) halogen,
 - 2) -NO₂,
 - 3) -CN,
 - 4) -C(O)-NH₂,
 - 5) -OH,
 - 6) -NH₂,
 - 7) -O-CF₃,
 - 8) a monocyclic or bicyclic 6- to 14-membered aryl, wherein aryl is mono-, di- or trisubstituted independently of one another by halogen or -O-(C₁-C₈)-alkyl,
 - 9) -(C₁-C₈)-alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by halogen, NH₂, -OH or a methoxy residue,

- 10) $-\text{O}-(\text{C}_1\text{-}\text{C}_8)\text{-alkyl}$, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by halogen, NH_2 , $-\text{OH}$ or a methoxy residue,
- 11) $-\text{SO}_2\text{-CH}_3$ or
- 12) $-\text{SO}_2\text{-CF}_3$,

provided that where R^0 is a monocyclic or bicyclic 6- to 14-membered aryl, then $\text{R}8$ is at least one halogen, $-\text{C}(\text{O})\text{-NH}_2$ or $-\text{O}-(\text{C}_1\text{-}\text{C}_8)\text{-alkyl}$ residue;

Q is a direct bond, $-(\text{C}_0\text{-}\text{C}_2)\text{-alkylene-C(O)-NR}^{10}-$, $-\text{NR}^{10}\text{-C(O)-NR}^{10}-$, $-\text{NR}^{10}\text{-C(O)-}$, $-\text{SO}_2-$, $-(\text{C}_1\text{-}\text{C}_6)\text{-alkylene}$, $-(\text{CH}_2)_m\text{-NR}^{10}\text{-C(O)-NR}^{10}\text{-}(\text{CH}_2)_n-$, $-(\text{CH}_2)_m\text{-NR}^{10}\text{-C(O)-(CH}_2)_n-$, $-(\text{CH}_2)_m\text{-S-(CH}_2)_n-$, $-(\text{CH}_2)_m\text{-C(O)-(CH}_2)_n-$, $-(\text{CH}_2)_m\text{-SO}_2\text{-NR}^{10}\text{-}(\text{CH}_2)_n-$, $-(\text{CH}_2)_m\text{-NR}^{10}\text{-}$
 $\text{SO}_2\text{-}(\text{CH}_2)_n-$, $-(\text{CH}_2)_m\text{-NR}^{10}\text{-SO}_2\text{-NR}^{10}\text{-}(\text{CH}_2)_n-$,
 $-(\text{CH}_2)_m\text{-CH(OH)-(CH}_2)_n-$, $-(\text{CH}_2)_m\text{-O-C(O)-NR}^{10}\text{-}(\text{CH}_2)_n-$, $-(\text{C}_2\text{-}\text{C}_3)\text{-alkylene-O-(C}_0\text{-}\text{C}_3)\text{-}$
 alkylene- , $-(\text{C}_2\text{-}\text{C}_3)\text{-alkylene-S(O)-}$, $-(\text{C}_2\text{-}\text{C}_3)\text{-alkylene-S(O)}_2-$, $-(\text{CH}_2)_m\text{-NR}^{10}\text{-C(O)-O-}$
 $(\text{CH}_2)_n-$, $-(\text{C}_2\text{-}\text{C}_3)\text{-alkylene-S(O)}_2\text{-NH-(R}^{10}\text{)-}$, $-(\text{C}_2\text{-}\text{C}_3)\text{-alkylene-N(R}^{10}\text{)-}$ or $-(\text{C}_0\text{-}\text{C}_3)\text{-}$
 alkylene-C(O)-O- ,

wherein R^{10} is as defined below, and wherein n and m are independently of one another identical or different and are the integers zero, 1, 2, 3, 4, 5 or 6, wherein the alkylene residues which are formed by $-(\text{CH}_2)_m-$ or $-(\text{CH}_2)_n-$ are unsubstituted or mono-, di- or trisubstituted independently of one another by halogen, $-\text{NH}_2$ or $-\text{OH}$; or $-(\text{C}_3\text{-}\text{C}_6)\text{-cycloalkylene}$, wherein cycloalkylene is unsubstituted or mono-, di- or trisubstituted independently of one another by halogen, $-\text{NH}_2$ or $-\text{OH}$;

R^1 is hydrogen, $-(\text{C}_1\text{-}\text{C}_4)\text{-alkyl}$, wherein alkyl is unsubstituted or substituted one to three times by $\text{R}13$; $-(\text{C}_1\text{-}\text{C}_3)\text{-alkylene-C(O)-NH-R}^0$, $-(\text{C}_1\text{-}\text{C}_3)\text{-alkylene-C(O)-O-R}10$, a monocyclic or bicyclic 6- to 14-membered aryl, wherein aryl is mono-, di- or trisubstituted independently of one another by $\text{R}8$, a monocyclic or bicyclic 4- to 15-membered heterocyclyl, containing one, two, three or four heteroatoms chosen from nitrogen, sulfur or oxygen; $-(\text{C}_1\text{-}\text{C}_3)\text{-perfluoroalkyl}$,
 $-(\text{C}_1\text{-}\text{C}_3)\text{-alkylene-S(O)-(C}_1\text{-}\text{C}_4)\text{-alkyl}$, $-(\text{C}_1\text{-}\text{C}_3)\text{-alkylene-S(O)}_2\text{-(C}_1\text{-}\text{C}_3)\text{-alkyl}$,

-(C₁-C₃)-alkylene-S(O)₂-N(R^{4'})-R^{5'}, -(C₁-C₃)-alkylene-O-(C₁-C₄)-alkyl,
-(C₀-C₃)-alkylene-(C₃-C₈)-cycloalkyl, or -(C₀-C₃)-alkylene-het, wherein het is
unsubstituted or mono-, di- or trisubstituted independently of one another by R14, and;
wherein R^{4'} and R^{5'} are independent of one another are identical or different and are
hydrogen or -(C₁-C₄)-alkyl;

R² is a direct bond or -(C₁-C₄)-alkylene, or

R¹ and R₃ together with the atoms to which they are bonded form a 6- to 8-membered cyclic group,
containing 1, 2, 3 or 4 heteroatoms chosen from nitrogen, sulfur or oxygen, and wherein,
said cyclic group is unsubstituted or mono-, di- or trisubstituted independently of one
another by R14; or

R¹-N-R²-V form a 4- to 8-membered cyclic group, containing 1, 2, 3 or 4 heteroatoms chosen from
nitrogen, sulfur or oxygen, wherein said cyclic group is unsubstituted or mono-, di- or
trisubstituted independently of one another by R14,

R14 is halogen, -OH, =O, -(C₁-C₈)-alkyl, -(C₁-C₄)-alkoxy, -NO₂, -(C₀-C₄)-alkyl-C(O)-O-R¹⁸,
-CN, -(C₀-C₄)-alkyl-N(R¹⁸)-R²¹, -(C₀-C₄)-alkyl-O-R¹⁸, -(C₀-C₄)-alkyl-het, -(C₀-C₈)-alkyl-
SO₂, -SO₂-(C₁-C₄)-alkyl, -SO₂-N(R¹⁸)-R²¹, -C(O)-NH-(C₁-C₈)-alkyl, -C(O)-N-[(C₁-C₈)-
alkyl]₂, -NR¹⁸-C(O)-NH-(C₁-C₈)-alkyl, -C(O)-NH₂, -S-R¹⁸, or -NR¹⁸-C(O)-NH-[(C₁-C₈)-
alkyl]₂,

wherein R¹⁸ and R²¹ are independently from each other hydrogen atom, -(C₁-C₃)-
perfluoroalkyl or -(C₁-C₆)-alkyl;

V is 1) a 3- to 7-membered cyclic residue, containing 1, 2, 3 or 4 heteroatoms chosen
from nitrogen, sulfur or oxygen, wherein said cyclic residue is unsubstituted or
mono-, di- or trisubstituted independently of one another by R14,

- 2) a 6- to 14-membered aryl, wherein aryl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14, or
- 3) a monocyclic or bicyclic 4- to 15-membered heterocyclyl, wherein said heterocyclyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14;

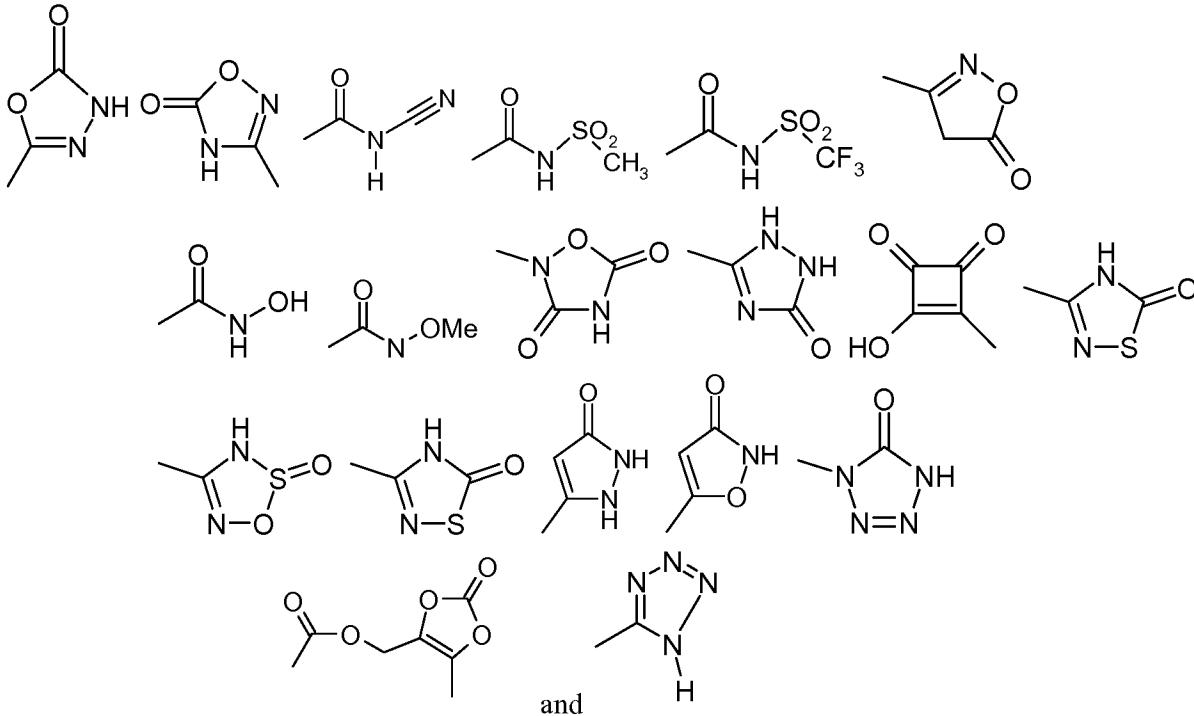
G is a direct bond, $-(\text{CH}_2)_m-\text{NR}^{10}-\text{SO}_2-\text{NR}^{10}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{CH(OH)}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-$, $-(\text{CH}_2)_m-\text{O}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{C(O)}-\text{NR}^{10}-(\text{CH}_2)_n-$, $-(\text{CH}_2)-\text{SO}_2-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{NR}^{10}-\text{C(O)}-\text{NR}^{10}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{NR}^{10}-\text{C(O)}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{C(O)}-(\text{CH}_2)_n-$, $-(\text{CH}_2)-\text{S}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{SO}_2-\text{NR}^{10}-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{NR}^{10}-\text{SO}_2-(\text{CH}_2)_n-$, $-(\text{CH}_2)_m-\text{NR}^{10}-$, $-(\text{CH}_2)_m-\text{O-C(O)}-\text{NR}^{10}-(\text{CH}_2)_n-$ or $-(\text{CH}_2)_m-\text{NR}^{10}-\text{C(O)-O}-(\text{CH}_2)_n-$;

n and m are independently of one another identical or different and are the integers zero, 1, 2, 3, 4, 5 or 6;

- M is
- 1) hydrogen,
 - 2) $-(\text{C}_1-\text{C}_8)$ -alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14,
 - 3) $-\text{C(O)-N(R11)-R12}$,
 - 4) $-(\text{CH}_2)_m-\text{NR}^{10}$,
 - 5) a 6- to 14-membered aryl, wherein aryl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14,
 - 6) a monocyclic or bicyclic 4- to 15-membered heterocyclyl, wherein heterocyclyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14,
 - 7) $-(\text{C}_3-\text{C}_8)$ -cycloalkyl, wherein said cycloalkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R14, or
 - 8) a 3- to 7-membered cyclic residue, containing 1, 2, 3 or 4 heteroatoms chosen from nitrogen, sulfur or oxygen, wherein said cyclic residue is unsubstituted or mono-, di- or trisubstituted independently of one another by R14;

- R³ and R⁴ are independent of one another are identical or different and are
- 1) hydrogen,
 - 2) halogen,
 - 3) -(C₁-C₄)-alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R₁₃,
 - 4) -(C₁-C₃)-perfluoroalkyl,
 - 5) phenyl, wherein phenyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R₁₃,
 - 6) -(C₀-C₄)-alkylene-O-R₁₉, wherein R₁₉ is
 - a) hydrogen,
 - b) -(C₁-C₄)-alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R₁₃, or
 - c) phenyl, wherein phenyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R₁₃,
 - d) -CF₃, or
 - e) -CHF₂,
 - 7) -NO₂,
 - 8) -CN,
 - 9) -SO_S-R¹¹, wherein s is 1 or 2,
 - 10) -SO_t-N(R¹¹)-R¹², wherein t is 1 or 2,
 - 11) -(C₀-C₄)-alkylene-C(O)-R¹¹,
 - 12) -(C₀-C₄)-alkylene-C(O)-O-R¹¹,
 - 13) -(C₀-C₄)-alkylene-C(O)-N(R¹¹)-R¹²,
 - 14) -(C₀-C₄)-alkylene-N(R¹¹)-R¹²,
 - 15) -NR¹⁰-SO₂-R¹⁰,
 - 16) -S-R¹⁰,
 - 17) -(C₀-C₂)alkylene-C(O)-O-(C₂-C₄)-alkylene-O-C(O)-(C₁-C₄)-alkyl,
 - 18) -C(O)-O-C(R₁₅, R₁₆)-O-C(O)-R₁₇,

- 19) $-(C_0-C_2)\text{alkylene}-C(O)-O-(C_2-C_4)\text{alkylene}-O-C(O)-O-(C_1-C_6)\text{alkyl}$,
- 20) $-C(O)-O-\text{C}(R15, R16)-O-C(O)-O-R17$,
- 21) $-(C_0-C_4)\text{alkylene}-(C_6-C_{14})\text{aryl}$, wherein aryl is mono-, di- or trisubstituted independently of one another by R13,
- 22) $-(C_0-C_4)\text{alkylene}-(C_4-C_{15})\text{heterocyclyl}$, wherein heterocyclyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R13
- 23) $-(C_0-C_4)\text{alkylene}-(C_3-C_8)\text{cycloalkyl}$, wherein cycloalkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R13,
- 24) $-(C_0-C_4)\text{alkylene-het}$, wherein het is unsubstituted or mono-, di- or trisubstituted independently of one another by R13,
- 25) $-(C_0-C_4)\text{alkylene-O-CH}_2-(C_1-C_3)\text{perfluoroalkylene-CH}_2-O-(C_0-C_4)\text{alkyl}$, or
- 26) a residue selected from the group consisting of



wherein Me is methyl, or

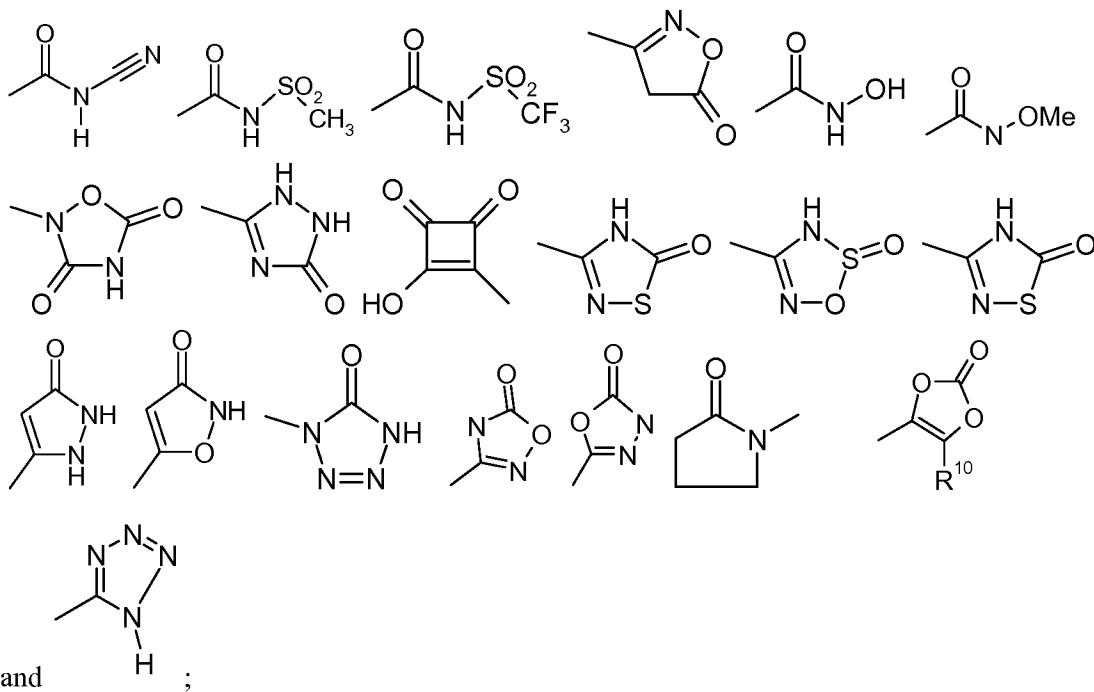
two -OR19 residues and adjacent atoms through which they are attached form together a 5- or 6-membered ring, that is unsubstituted or substituted one, two, three or four times by R13;

R11 and R12 are independently of one another identical or different and are

- 1) hydrogen,
- 2) -(C₁-C₆)-alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R13,
- 3) -(C₀-C₆)-alkyl-(C₃-C₈)-cycloalkyl,
- 4) -SO_t-R¹⁰, wherein t is 1 or 2,
- 5) -(C₀-C₆)-alkyl-(C₆-C₁₄)-aryl, wherein alkyl and aryl independently from one another are unsubstituted or mono-, di- or trisubstituted by R13,
- 6) -(C₁-C₃)-perfluoroalkyl,
- 7) -O-R¹⁷, or
- 8) -(C₀-C₆)-alkyl-(C₄-C₁₅)-heterocyclyl, wherein alkyl and heterocyclyl independently from one another are unsubstituted or mono-, di- or trisubstituted by R13, or

R11 and R12 together with the nitrogen atom to which they are bonded can form a 4- to 8-membered monocyclic heterocyclic ring which in addition to the nitrogen atom can contain one or two identical or different ring heteroatoms chosen from oxygen, sulfur and nitrogen; wherein said heterocyclic ring is unsubstituted or mono-, di- or trisubstituted independently of one another by R13;

R13 is halogen, -NO₂, -CN, =O, -OH, -CF₃, -C(O)-O-R¹⁰, -C(O)-N(R¹⁰)-R²⁰, -N(R¹⁰)-R²⁰, -(C₃-C₈)-cycloalkyl, -(C₀-C₃)-alkylene-O-R¹⁰, -Si-(CH₃)₃, -N(R¹⁰)-S(O)_u-R¹⁰, wherein u is 1 or 2, -S-R¹⁰, -SO_r-R¹⁰, wherein r is 1 or 2, -S(O)_v-N(R¹⁰)-R²⁰, wherein v is 1 or 2, -C(O)-R¹⁰, -(C₁-C₈)-alkyl, -(C₁-C₈)-alkoxy, phenyl, phenoxy-, -O-CF₃, -(C₀-C₄)-alkyl-C(O)-O-C(R₁₅, R₁₆)-O-C(O)-R₁₇, -(C₁-C₄)-alkoxy-phenyl, -(C₀-C₄)-alkyl-C(O)-O-C(R₁₅, R₁₆)-O-C(O)-O-R₁₇, -(C₁-C₃)-perfluoroalkyl, -O-R₁₅, -NH-C(O)-NH-R¹⁰, -NH-C(O)-O-R¹⁰, or a residue selected from the group consisting of



R¹⁰ and R²⁰ are independently of one another hydrogen, -(C₁-C₆)-alkyl,

-(C₀-C₄)-alkyl-OH, -(C₀-C₄)-alkyl-O-(C₁-C₄)-alkyl or -(C₁-C₃)-perfluoroalkyl;

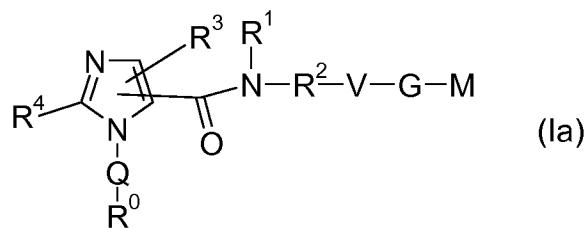
R₁₅ and R₁₆ are independently of one another hydrogen, -(C₁-C₆)-alkyl, or together with the carbon atom to which they are bonded they can form a 3- to 6 membered carbocyclic ring which is unsubstituted or substituted one to three times by R¹⁰; and

R₁₇ is -(C₁-C₆)-alkyl, -(C₁-C₆)-alkyl-OH, -(C₁-C₆)-alkyl-O-(C₁-C₆)-alkyl, -(C₃-C₈)-cycloalkyl, -(C₁-C₆)-alkyl-O-(C₁-C₈)-alkyl-(C₃-C₈)-cycloalkyl, -(C₁-C₆)-alkyl-(C₃-C₈)-cycloalkyl, wherein said cycloalkyl ring is unsubstituted or substituted one, two or three times by -OH, -O-(C₁-C₄)-alkyl or R¹⁰; or

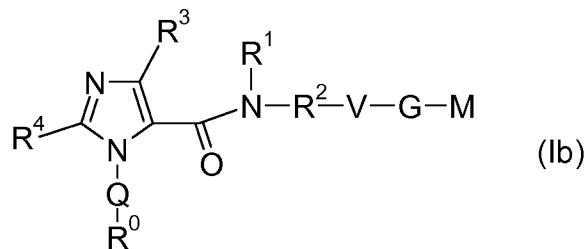
in all its stereoisomeric forms and mixtures thereof in any ratio, and its physiologically tolerable salts.

2-7. (Cancelled)

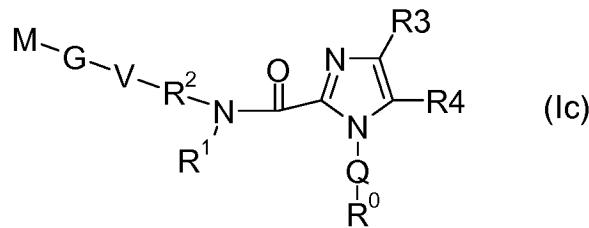
8. (Currently amended) The compound according to claim 4~~18~~, wherein, formula I is a compound of the formula Ia,



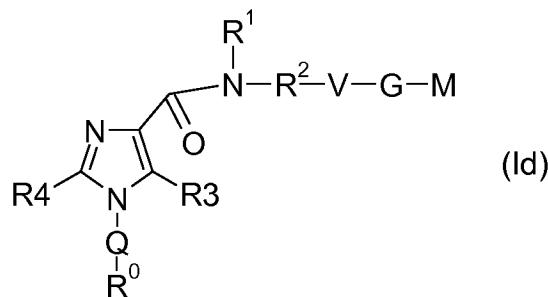
9. (Currently amended) The compound according to claim 4~~18~~, wherein, formula I is a compound of the formula Ib,



10. (Currently amended) The compound according to claim 4~~18~~, wherein, formula I is a compound of the formula Ic,



11. (Currently amended) The compound according to claim 4~~18~~, wherein, formula I is a compound of the formula Id,



12. (Currently amended) ~~The~~ compound according to claim 18, which is:

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

5-Chloro-3-[5-(5-chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-phenyl-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-ethyl-5-methyl-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-ethyl-5-methyl-1H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-iodo-5-methyl-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-iodo-5-methyl-1H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-methoxymethyl-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-methoxymethyl-1H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-cyclopropyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2,6-difluoro-phenyl)-3H-imidazole- 4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-cyclopentyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2-methoxy-ethyl)-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2,6-dichloro-phenyl)-3H-imidazole- 4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-isopropyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-pyridin-2-yl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-2-phenyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-2-phenyl-1H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-pyridin-3-yl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2-methyl-thiazol-4-yl)-3H- imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2-methyl-thiazol-4-yl)-1H- imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-ethanesulfonyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-3H-imidazole-2,4- dicarboxylic acid 2-amide 4-[(1-isopropyl-piperidin-4-yl)-amide];

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-1H-imidazole-2,4- dicarboxylic acid 2-amide 4-[(1-isopropyl-piperidin-4-yl)-amide];

2-Bromo-3-[5-(5-chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-3H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

2-Bromo-1-[5-(5-chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-methyl-1H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

2-(4-Chloro-phenyl)-1-[5-(5-chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[{5-Chloro-pyridin-2-ylcarbamoyl}-methyl]-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[{(4-Chloro-phenylcarbamoyl)-methyl}-2-methoxymethyl-3H-imidazole-4-carboxylic acid-(1-isopropyl-piperidin-4-yl)-amide;

4-[{(4-Chloro-phenylcarbamoyl)-methyl}-2-methoxymethyl-1H-imidazole-4-carboxylic acid-(1-isopropyl-piperidin-4-yl)-amide;

4-[{(5-Chloro-pyridin-2-ylcarbamoyl)-methyl}-2-ethanesulfonyl-1H-imidazole-4-carboxylic acid-(1-isopropyl-piperidin-4-yl)-amide;

5-Chloro-3-[{(5-chloro-pyridin-2-ylcarbamoyl)-methyl}-2-phenoxy-3H-imidazole-4-carboxylic acid-(1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-cyclopropyl-1H-imidazole-4- carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2-methoxy-phenyl)-5-methyl-3H- imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(3-trifluoromethyl-phenyl)-3H- imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-5-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H- imidazole-2-carboxylic acid ethyl ester;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H- imidazole-4-carboxylic acid tert-butyl ester;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H- imidazole-4-carboxylic acid;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H-imidazole-4-carboxylic acid methyl ester;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2,4-dicarboxylic acid 4-amide 2-[(1-isopropyl-piperidin-4-yl)-amide];

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2,4-dicarboxylic acid 4-[(2-hydroxy-ethyl)-methyl-amide] 2-[(1-isopropyl-piperidin-4-yl)-amide];

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-4-(3-hydroxy-azetidine-1-carbonyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2,4-dicarboxylic acid 4-dimethylamide 2-[(1-isopropyl-piperidin-4-yl)-amide];

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H-imidazole-4-carboxylic acid cyclopropylmethyl ester;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H-imidazole-4-carboxylic acid tert-butoxycarbonylmethyl ester;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2,4-dicarboxylic acid 4-[(2-hydroxy-ethyl)-amide] 2-[(1-isopropyl-piperidin-4-yl)-amide];

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-4-(3-methoxy-azetidine-1-carbonyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

3-[1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(1-isopropyl-piperidin-4-ylcarbamoyl)-1H-imidazol-4-yl]-propionic acid methyl ester;

~~4-(3-Methoxy-benzyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;~~

~~4-(3-Methoxy-benzyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~4-(3-chloro-benzyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~4-(3,4-Difluoro-benzyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~4-(3-Fluoro-benzyl)-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~{[4-(3-Methoxy-benzyl)-1H-imidazol-2-yl]-[4-(1-methyl-piperidin-4-yl)piperazin-1-yl]}-methanone;~~

~~4-(3-Methoxy-benzyl)-1H-imidazole-2-carboxylic acid (3,4,5,6-tetrahydro-2H-[1,4]bipyridinyl-4-yl)methyl-amide;~~

~~4-(3-Methoxy-benzyl)-1H-imidazole-2-carboxylic acid (1-pyridin-4-yl-azetidin-3-yl)methyl-amide;~~

~~4-(3-Methoxy-benzyl)-1H-imidazole-2-carboxylic acid (3,4,5,6-tetrahydro-2H-[1,4]bipyridinyl-4-yl)methyl-amide;~~

~~4-(3-methoxy-benzyl)-1H-imidazole-2-carboxylic acid (1-pyridin-4-yl-azetidin-3-yl)methyl-amide;~~

~~1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~1-[2-(4-Chloro-phenyl)-ethyl]-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-yl)methyl-amide;~~

~~4-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2-carboxylic acid (1-isopropyl-azetidin-3-yl)methyl-amide;~~

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2-carboxylic acid (3,4,5,6-tetrahydro-2H-[1,4']bipyridinyl-4-ylmethyl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2-carboxylic acid (1-isopropyl-piperidin-4-ylmethyl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-1H-imidazole-2-carboxylic acid (3,4,5,6-tetrahydro-2H-[1,4']bipyridinyl-4-yl)-amide;

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-[2-(2-methoxy-ethoxy)-ethoxymethyl]-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;

1-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-methoxymethyl-1H-imidazole-4-carboxylic acid (2'-methanesulfonyl-biphenyl-4-yl)-amide;

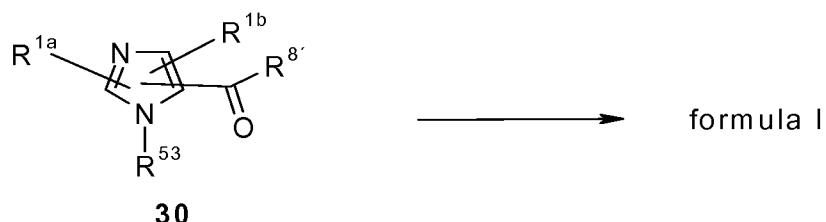
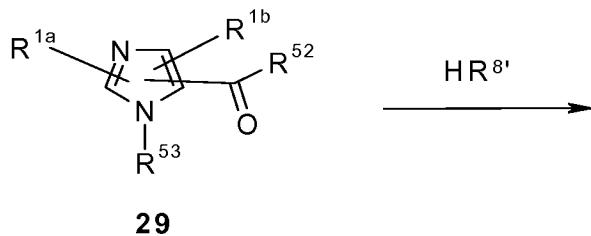
~~3-[2-(4-Chloro-phenyl)-ethyl]-2-[2-(2-methoxy-ethoxy)-ethoxymethyl]-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide;~~

~~3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(2-methoxy-ethoxymethyl)-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide; or~~

~~3-[{(5-Chloro-pyridin-2-ylcarbamoyl)-methyl}-2-(2-methoxy-ethoxymethyl)-3H-imidazole-4-carboxylic-acid-(1-isopropyl-piperidin-4-yl)-amide; or~~

3-[5-(5-Chloro-thiophen-2-yl)-isoxazol-3-ylmethyl]-2-(perhydro-1,4-oxazepine-4-carbonyl)-3H-imidazole-4-carboxylic acid (1-isopropyl-piperidin-4-yl)-amide.

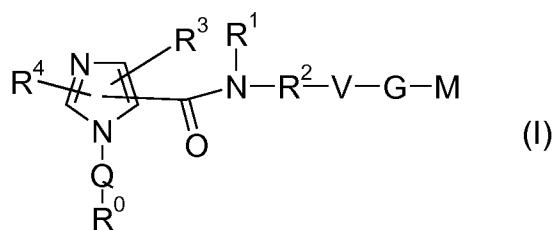
13. (Currently amended) A process for the preparation of a compound according to claim ~~4-18~~ comprising condensing a compound of the formula **29** with a compound of the formula HR^{8'} to give a compound of the formula **30** and converting the compound of the formula **30** into the compound of the formula I,



wherein the residue R^{8'} has the definition or represents -N(R¹)-R²-V-G-M as indicated in claims 1 to 12 defined in claim 18, but where in R^{8'} functional groups can also be present in the form of groups that are or a group which can be subsequently transformed into the final functional groups present in said -N(R¹)-R²-V-G-M, and where the residue R⁵³ denotes the group -Q-R⁰ as defined in claim 18, where the groups Q and R⁰ have the definitions as in the compound of formula (i) or can denote a group which is can be subsequently transformed into the said group -Q-R⁰, and where the group -C(O)-R⁵² can be a carboxylic acid group or derivatives thereof, and where the groups R^{1a} and R^{1b} in the formulae 29 and 30 have the corresponding definitions of R³ and R⁴ in formula I as defined in claims 1 to 12 of claim 18, optionally with or functional groups in them can also be present which are in protected form or in the form of precursor groups.

14. (Currently amended) A pharmaceutical preparation, comprising at least one compound of the formula I according to claim 18 in all its stereoisomeric forms and mixtures thereof in any ratio, and/or its physiologically tolerable salts, and a pharmaceutically acceptable carrier.
15. (Currently amended) A method of inhibiting the activity of factor Xa and/or factor VIIa comprising contacting an inhibitory amount of a compound according to claim 18 with a composition containing factor Xa and/or factor VIIa to influence blood coagulation.

- 16 (Currently amended) A method of inhibiting the activity of factor Xa and/or factor VIIa comprising contacting an inhibitory amount of a compound according to claim 18 with a composition containing factor Xa and/or factor VIIa to influence fibrinolysis.
17. (Currently amended) A method for treating a patient suffering from, or subject to, a disease state selected from abnormal thrombus formation, acute myocardial infarction, cardiovascular disorders, unstable angina, thromboembolism, acute vessel closure associated with thrombolytic therapy or percutaneous transluminal coronary angioplasty (PTCA), transient ischemic attacks, stroke, intermittent claudication, bypass grafting of the coronary or peripheral arteries, vessel luminal narrowing, restenosis post coronary or venous angioplasty, maintenance of vascular access patency in long-term hemodialysis patients, pathologic thrombus formation occurring in the veins of the lower extremities following abdominal, knee or hip surgery, pathologic thrombus formation occurring in the veins of the lower extremities following abdominal, knee and/or hip surgery, a risk of pulmonary thromboembolism, or disseminated systemic intravascular coagulopathy occurring in vascular systems during septic shock, viral infections or cancer, or reducing an inflammatory response, fibrinolysis, or treatment of coronary heart disease, myocardial infarction, angina pectoris, vascular restenosis, for example restenosis following angioplasty-like PTCA, adult respiratory distress syndrome, multi-organ failure, and/or disseminated intravascular clotting disorder, deep vein and proximal vein thrombosis, which can occur following surgery the method comprising the administration of a therapeutically effective amount of at least one compound of formula I according to claim 18 in any of its stereoisomeric forms and mixtures thereof in any ratio, or its physiologically tolerable salts.
18. (New) A compound according to claim 1 of the formula I,



wherein,

R⁰ is a heterocyclyl selected from the group consisting of thienyl, thiadiazolyl, isoxazolyl and thiazolyl, wherein said heterocyclyl is substituted by a residue selected from the group

consisting of thieryl, 2-thienyl and 3-thienyl, wherein said residue is unsubstituted or mono- or disubstituted independently of one another by R8;

R8 is fluorine, chlorine or bromine;

Q is methylene or ethylene;

R¹ is hydrogen;

R² is a direct bond or methylene;

V is 1) a residue selected from the group consisting of azaindolyl, 1H-pyrrolopyridyl, azetidine, 1,4-diazepane, isoxazole, isoquinoline, piperazine, piperidine, pyrazine, pyridazine, pyrimidine, pyrrolidine, quinazoline, quinoline or tetrahydropyran,
wherein said residue is unsubstituted or mono- or disubstituted independently of one another by R14, or
2) phenyl, that is unsubstituted or mono- or disubstituted independently of one another by R14; or

R¹-N-R²-V forms azetidine, pyrrolidine, piperidine or piperazine;

R14 is fluorine, chlorine, methyl, ethyl, -NH₂ or -SO₂-CH₃;

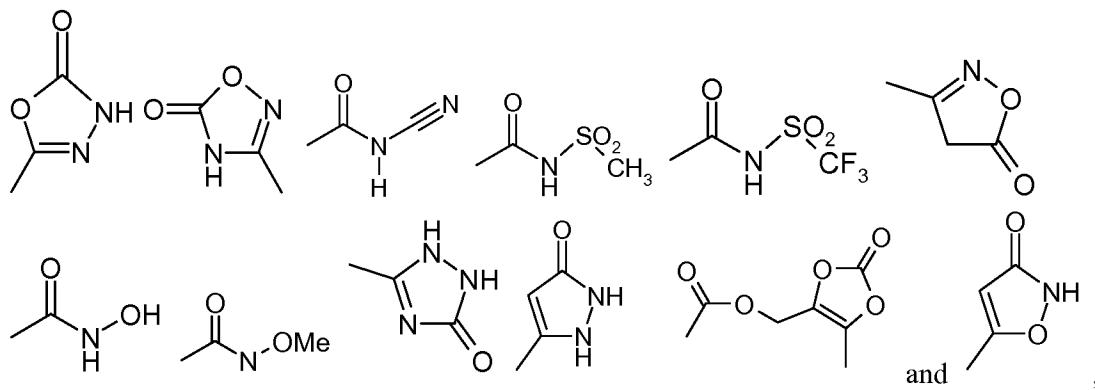
G is a direct bond;

M is a residue selected from the group consisting of hydrogen, (C₂-C₄)-alkyl, azepanyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, imidazolyl, ketomorpholinyl, morpholinyl, [1,4]oxazepanyl, phenyl, piperidinyl, piperidonyl, pyrazinyl, pyrazolyl, pyridazinyl, pyridinyl, pyrimidyl, pyrrolidinyl, 1,4,5,6-tetrahydro-pyridazinyl, and tetrahydropyranyl, wherein said residue is unsubstituted or mono- or disubstituted independently of one another by R14;

R³ and R⁴ are independent of one another, are identical or different, and are

- 1) hydrogen,
- 2) fluorine or chlorine,
- 3) -(C₁-C₄)-alkyl, wherein said alkyl is unsubstituted or mono-, di- or trisubstituted independently of one another by R13,
- 4) -(C₁-C₃)-perfluoroalkyl,
- 5) phenyl, wherein said phenyl is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13,

- 6) -(C₀-C₂)-alkylene-O-R19, wherein R19 is
 - a) hydrogen,
 - b) -(C₁-C₄)-alkyl, wherein said alkyl is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13, or
 - c) phenyl, wherein phenyl is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13,
 - d) -CF₃, or
 - e) -CHF₂,
- 8) -CN,
- 9) -SO_S-R¹¹, wherein s is 1 or 2,
- 10) -SO_t-N(R¹¹)-R¹², wherein t is 1 or 2,
- 11) -(C₀-C₄)-alkylene-C(O)-R¹¹,
- 12) -(C₀-C₄)-alkylene-C(O)-O-R¹¹,
- 13) -(C₀-C₄)-alkylene-C(O)-N(R¹¹)-R¹²,
- 14) -(C₀-C₄)-alkylene-N(R¹¹)-R¹²,
- 15) -NR¹⁰-SO₂-R¹⁰,
- 17) -(C₀-C₂)alkylene-C(O)-O-(C₂-C₄)-alkylene-O-C(O)-(C₁-C₄)-alkyl,
- 18) -C(O)-O-C(R15, R16)-O-C(O)-R17,
- 19) -(C₀-C₂)alkylene-C(O)-O-(C₂-C₄)-alkylene-O-C(O)-O-(C₁-C₆)-alkyl,
- 20) -C(O)-O- C(R15, R16)-O-C(O)-O-R17,
- 23) -(C₀-C₃)-alkylene-(C₃-C₆)-cycloalkyl, or -(C₀-C₄)-alkylene-(C₃-C₆)-cycloalkyl, that is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13,
- 24) het, wherein said het is pyridyl or thiazolyl, that is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13, or
- 25) -(C₀-C₃)-alkylene-O-CH₂-CF₂-CH₂-O-(C₀-C₃)-alkyl, -(C₀-C₃)-alkylene-O-CH₂-CF₂-CF₂-CH₂-O-(C₀-C₃)-alkyl, or -(C₀-C₃)-alkylene-O-CH₂-(C₁-C₃)-perfluoroalkylene-CH₂-OH, or
- 26) a residue selected from the group consisting of



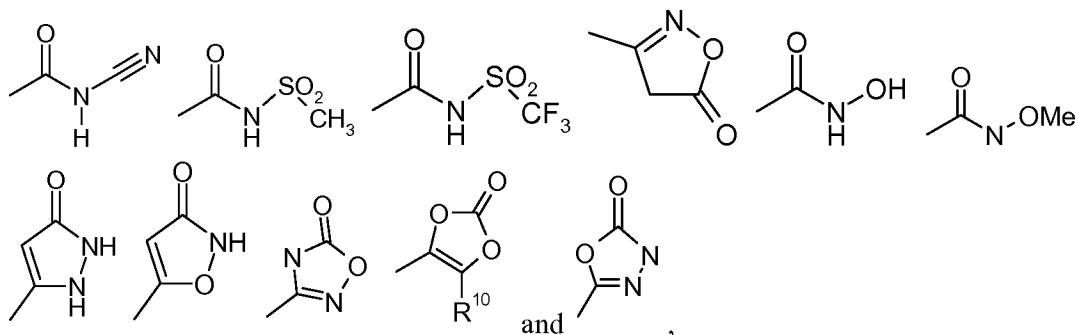
wherein Me is methyl;

R11 and R12 are, independently of one another, identical or different and are

- 1) hydrogen,
- 2) -(C₁-C₄)-alkyl, wherein alkyl is unsubstituted or mono-, di- or trisubstituted, independently of one another, by R13,
- 3) -(C₀-C₆)-alkyl-(C₃-C₆)-cycloalkyl,
- 7) -O-R¹⁷, or
- 8) -(C₀-C₆)-alkyl-heterocyclyl, wherein alkyl and heterocyclyl, independently from one another, are unsubstituted or mono-, di- or trisubstituted by R13 and wherein heterocyclyl is azetidine, imidazolidine, morpholine, (1,4)-oxazepane or pyrrolidine, or

R11 and R12, together with the nitrogen atom to which they are bonded, form azetidine, imidazolidine, morpholine, (1,4)-oxazepane, 1,4-oxazepine, piperazine, piperidine, pyrrolidine or thiomorpholine;

R13 is fluorine, chlorine, -CN, =O, -OH, -CF₃, -C(O)-O-R¹⁰, -C(O)-N(R¹⁰)-R²⁰, -N(R¹⁰)-R²⁰, -(C₃-C₆)-cycloalkyl, -(C₀-C₃)-alkylene-O-R¹⁰, -Si-(CH₃)₃, -S-R¹⁰, -SO₂-R¹⁰, -(C₁-C₄)-alkyl, -(C₁-C₃)-perfluoroalkyl, or a residue selected from the group consisting of



wherein Me is methyl;

R^{10} and R^{20} are, independently of one another, hydrogen, -(C₁-C₄)-alkyl, or -(C₁-C₃)-perfluoroalkyl; and

R^{15} and R^{16} are, independently of one another, hydrogen, -(C₁-C₄)-alkyl, or together form cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl, wherein each ring is unsubstituted or substituted one to three times by R^{10} ,

in all its stereoisomeric forms and mixtures thereof in any ratio, and its physiologically tolerable salts.